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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,826	03/10/2004	Dieu Dai Huynh	AVERP3525USB	1916

7590 03/28/2007
Heidi A. Boehlefeld
Renner, Otto, Boisselle & Sklar, LLP
Nineteenth Floor
1621 Euclid Avenue
Cleveland, OH 44115-2191

EXAMINER

GILLESPIE, BENJAMIN

ART UNIT	PAPER NUMBER
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1711

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/797,826	Applicant(s) HUYNH, DIEU DAI	
	Examiner Benjamin J. Gillespie	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/1/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

1. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language “substantially” renders the claim indefinite because it is unclear how “substantially” modifies “solvent free”.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
3. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting

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ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 7, 12, and 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4, and 5 of copending Application No. 11/625394. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications disclose aqueous coating compositions comprising polyether-polyurethane and polyester-polyurethane resins. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoades et al ('824) in view of Eckell ('293). Rhoades et al teaches a dye transfer coating composition comprising water dispersible polyether-polyurethane resin or polyester-polyurethane resin, and multifunctional cross-linking agent consisting of polyaziridine (Abstract; col 5 lines 34-38; col 6 lines 56-57; col 7 lines 6-7, 17, and 51-52). In particular, patentees teach the resin to be the

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reaction product of aliphatic polyisocyanate and polyether polyol or polyester polyol, (Col 3 lines 67-68; col 4 lines 1-3).

6. Although Rhoades et al teach dye transfer coating compositions comprising water dispersible polyether-polyurethane or polyester-polyurethane, patentees fail to explicitly disclose a combination of the two resins. Eckell et al also teach a dye receive coating compositing comprising polyurethane binders, wherein the binder may consist of polyether-polyurethane, polyester-polyurethane or mixtures thereof (Col 2 lines 4-15, col 4 lines 22-25, 40-43). It would have been obvious to one of ordinary skill in the art at the time of invention of include a mixture of polyester-polyurethane and polyether-polyurethane in Rhoades et al as taught by Eckell et al based on the motivation that the composition and application of the resin in Eckell et al is analogous to Rhoades et al, and it is prima face obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition which is to be used for the very same purpose. *In re Kerkhoven* 205 USPQ 1069; *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

7. Finally, Rhoades et al fail to teach the ratio of polyether-urethane resin relative to polyester-urethane resin. However it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

8. Claims 7-8, 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramello et al ('972). Ramello et al disclose a dye transfer coating composition comprising water dispersible polyether-polyurethane resin or polyester-polyurethane resin, and multifunctional cross-linking agent (Col 3 lines 45-46, 50-52, 64-66; col 4 lines 60-65; col 7 lines 64-67). In

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particular, patentees teach the resin to be the reaction product of aliphatic polyisocyanate and polyether polyol or polyester polyol as well as the final dispersions primarily contain water, not solvent (Col 4 lines 27-31; col 7 lines 4-12).

9. Although Ramello et al teach a dye transfer coating compositions comprising water dispersible polyether-polyurethane or polyester-polyurethane, patentees fail to explicitly disclose to use a combination of the two resins. Eckell et al also teach a dye receive coating compositing comprising polyurethane binders, wherein the binder may consist of polyether-polyurethane, polyester-polyurethane or mixtures thereof (Col 2 lines 4-15, col 4 lines 22-25, 40-43). It would have been obvious to one of ordinary skill in the art at the time of invention of include a mixture of polyester-polyurethane and polyether-polyurethane in Rhoades et al as taught by Eckell et al based on the motivation that the composition and application of the resin in Eckell et al is analogous to Ramello et al, and it is prima face obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition which is to be used for the very same purpose. *In re Kerkhoven* 205 USPQ 1069; *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

10. Furthermore, Ramello et al fail to teach the ratio of polyether-urethane resin relative to polyester-urethane resin. However it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

11. Claims 7 and 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramello et al ('972) in view of Eckell ('293) and in further view of Rhoades et al ('824). Aforementioned, Ramello et al in view of Eckell render obvious a polyurethane dispersion dye transfer coating

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comprising the reaction product of aliphatic polyisocyanate and polyester and polyether polyol, as well as multifunctional cross-linking agent consisting of hydrazine, ethylene diamine, and diethylenetriamine, but fails to teach polyfunctional aziridine (Col 7 lines 64-67; col 8 lines 1-2).

12. As previously discussed Rhoades et al in view of Eckell render obvious a dye transfer coating composition comprising water dispersible polyether and ester-urethane resin, and go on to teach that the multifunctional cross-linking agent consists of ethylenediamine, diethylenetriamine, and hydrazine, as well as polyaziridine (Abstract; col 5 lines 34-38; col 6 lines 56-57; col 7 lines 6-7, 17, and 51-52). Patentees further teach that the polyaziridine provides superior intra-molecular cross-linking, which provides improved solvent resistance for the cured coating (Col 7 lines 36-38, 51-52).

13. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to include polyaziridine as a cross-linking agent in Ramello et al in view of Eckell based on the compositions being analogous and having the same applications as well as polyaziridine provides improved solvent resistance in the cured coating.

Note

14. Although claims 7-13 were considered allowable in the office action dated 9/28/2006, in view of the newly cited are stated above, claims are currently rejected.

Conclusion


15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin J. Gillespie whose telephone number is 571-272-2472. The examiner can normally be reached on 8am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-

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272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B. Gillespie


RABON SERGENT
PRIMARY EXAMINER